



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,451	06/23/2003	Egisto Boschetti	039322-0233	7217
22428	7590	03/20/2006	EXAMINER	
FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			TRAN, MY CHAU T	
			ART UNIT	PAPER NUMBER
			1639	

DATE MAILED: 03/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b> <i>Restriction &amp; Election</i>	<b>Application No.</b> 10/600,451	<b>Applicant(s)</b> BOSCHETTI ET AL.	
	<b>Examiner</b> MY-CHAU T. TRAN	<b>Art Unit</b> 1639	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 2 and 14-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 2 and 14-34 are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Application and Claims Status***

1. Applicant's preliminary amendment filed 06/23/2003 is acknowledged and entered.

Claims 1 and 3-13 have been cancelled. Claims 19, 20, and 27 have been amended.

2. Claims 2 and 14-34 are pending.

### ***Election/Restrictions***

3. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 2, 14, 15, and 31-34, drawn to a porous ceramic support, classified in class 435, subclass DIG 44.
  - II. Claims 16 and 18-20, drawn to a method for solid phase synthesis of molecules with the step of derivatizing ceramic surface material, classified in class 435, subclass DIG 49.
  - III. Claim 17 is drawn to a method for solid phase synthesis of molecules with the step of derivatizing a three-dimensional polymer network within interior channels of the pore-filled ceramic particles, classified in class 436, subclass 523.
  - IV. Claims 21 and 22, drawn to a method for solid phase synthesis of polypeptides or peptidomimetics using porous ceramic solid support with an amino functionality, classified in class 436, subclass 106.

Art Unit: 1639

- V. Claims 23 and 24, drawn to a method for solid phase synthesis of polypeptides or peptidomimetics using porous ceramic solid support with phenyl functionality, classified in class 436, subclass 86.
- VI. Claims 25, 27, and 28, drawn to a combinatorial synthesis method for preparing aromatic and heteroaromatic compound libraries using porous ceramic solid support with an aromatic functionalities and linkers, classified in class 435, subclass DIG 34.
- VII. Claim 26 is drawn to a combinatorial synthesis method for preparing aromatic and heteroaromatic compound libraries with the step of functionalizing a three-dimensional polymer network with an aromatic functionalities and linkers, classified in class 436, subclass 528.
- VIII. Claims 29-30, drawn to a method for generating combinatorial libraries of linkers, classified in class 435, subclass DIG 42.

The inventions are distinct, each from the other because of the following reasons:

4. Inventions of Groups II-VIII are directed to related processes. The related inventions are distinct if the inventions as claimed do not overlap in scope, i.e., are mutually exclusive; the inventions as claimed are not obvious variants; and the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect. See MPEP § 806.05(j). In the instant case, the processes are distinct because they are mutually exclusive, i.e. they are using different steps, requiring different reagents and/or producing different results. For example, Group II requires the reagent of a ceramic surface material. Group III requires the reagent of a three-dimensional polymer network within interior

Art Unit: 1639

channels of the pore-filled ceramic particles. Group IV requires the reagent combination of a ceramic surface material and amino functionality. Group V requires the reagent combination of a ceramic surface material and phenyl functionality. Group VI requires the reagent combination of a ceramic surface material, an aromatic functionalities, and linkers. Group VII the reagent combination of a three-dimensional polymer network, an aromatic functionalities, and linkers. Group VIII requires the method step of cleaving the linkers from the ceramic particles. These reagents are structurally distinct from each other and would produce different result. The method step of cleaving would result in unbound linkers and thus produce different result from the method of Groups II-VII. Consequently, the related inventions are distinct as claimed are mutually exclusive and have a materially different design, i.e. requires different reagents and producing different products/results, and the restriction among the groups are proper.

5. Inventions Group I (product) and Group II (process) are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown:

(1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case the product as claimed can be used in a materially different process of using that product such as the method of immobilizing enzymes for catalytic reaction or any methods of Group III-VIII.

6. Inventions Group I (product) and Group III (process) are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be

Art Unit: 1639

shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case the product as claimed can be used in a materially different process of using that product such as the method of immobilizing enzymes for catalytic reaction or any methods of Group II and IV-VIII.

7. Inventions Group I (product) and Group IV (process) are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case the product as claimed can be used in a materially different process of using that product such as the method of immobilizing enzymes for catalytic reaction or any methods of Group II, III and V-VIII.

8. Inventions Group I (product) and Group V (process) are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case the product as claimed can be used in a materially different process of using that product such as the method of immobilizing enzymes for catalytic reaction or any methods of Group II-IV and VI -VIII.

Art Unit: 1639

9. Inventions Group I (product) and Group VI (process) are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case the product as claimed can be used in a materially different process of using that product such as the method of immobilizing enzymes for catalytic reaction or any methods of Group II-V and VII -VIII.

10. Inventions Group I (product) and Group VII (process) are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case the product as claimed can be used in a materially different process of using that product such as the method of immobilizing enzymes for catalytic reaction or any methods of Group II-VI and VIII.

11. Inventions Group I (product) and Group VIII (process) are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case the product as claimed can be

Art Unit: 1639

used in a materially different process of using that product such as the method of immobilizing enzymes for catalytic reaction or any methods of Group II-VII.

12. Because these inventions are independent or distinct for the reasons given above and have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is proper.

13. The examiner has required restriction between product (i.e. the product of Group I (Claims 2, 14, 15, and 31-34)) and process claims (i.e. the processes of Group II-VIII (Claims 16-30)). Where applicant elects claims directed to the product, and the product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder. All claims directed a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103 and 112. Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained.

Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP § 821.04(b). Additionally, in order to retain the right to rejoinder



Art Unit: 1639

in accordance with the above policy, applicant is advised that the process claims should be amended during prosecution to require the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

14. This application contains claims directed to patentably distinct species of the claimed invention for Groups II, VI-VIII. Elections of species are required as follows.

15. *If applicant elected the invention of Group II*, applicant is required to elect from the following patentably distinct species:

a) A *single specific species* of ceramic surface material (i.e. see claim 18).

b) A *single specific species* of molecule (i.e. see claims 19 and 20).

The species are independent or distinct, each from the other, because they have different chemical structure and/or physiochemical properties and would be capable of separate manufacture and/or use. Moreover, the above species can be separately classified, and would necessitate different and separately burdensome manual and computer bibliographic and structure searches in both patent and non-patent areas.

Applicant is required under 35 U.S.C. 121 to elect *a single disclosed species* of the above species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, Claim 16 is generic.

Art Unit: 1639

16. ***If applicant elected the invention of Group VI***, applicant is required to elect from the following patentably distinct species:

- a) A ***single specific species*** of reaction (i.e. see claims 27 and 28).
- b) A ***single specific species*** of aromatic functionalities.
- c) A ***single specific species*** of linkers.

The species are independent or distinct, each from the other, because they have different chemical structure and/or physiochemical properties and would be capable of separate manufacture and/or use. Moreover, the above species can be separately classified, and would necessitate different and separately burdensome manual and computer bibliographic and structure searches in both patent and non-patent areas.

Applicant is required under 35 U.S.C. 121 to elect ***a single disclosed species*** of the above species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, Claim 25 is generic.

17. ***If applicant elected the invention of Group VII***, applicant is required to elect from the following patentably distinct species:

- a) A ***single specific species*** of aromatic functionalities.
- b) A ***single specific species*** of linkers.

The species are independent or distinct, each from the other, because they have different chemical structure and/or physiochemical properties and would be capable of separate manufacture and/or use. Moreover, the above species can be separately classified, and would

Art Unit: 1639

necessitate different and separately burdensome manual and computer bibliographic and structure searches in both patent and non-patent areas.

Applicant is required under 35 U.S.C. 121 to elect *a single disclosed species* of the above species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, Claim 26 is generic.

18. *If applicant elected the invention of Group VIII*, applicant is required to elect a *single specific species* of aromatic functionalities.

The species are independent or distinct, each from the other, because they have different chemical structure and/or physiochemical properties and would be capable of separate manufacture and/or use. Moreover, the above species can be separately classified, and would necessitate different and separately burdensome manual and computer bibliographic and structure searches in both patent and non-patent areas.

Applicant is required under 35 U.S.C. 121 to elect *a single disclosed species* of the above species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, Claim 29 is generic.

19. Applicant is advised that a reply to this requirement *must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added*. An argument that a claim is allowable or that all claims are generic is considered *nonresponsive* unless accompanied by an election.

Art Unit: 1639

20. Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141. ***If claims are added after the election, applicant must indicate which are readable upon the elected species.*** MPEP § 809.02(a).

21. Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention. Because the above restriction/election requirement is complex, a telephone call to applicants to request an oral election was not made. See MPEP § 812.01.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

22. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the

Art Unit: 1639

currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to My-Chau T. Tran whose telephone number is 571-272-0810. The examiner can normally be reached on Monday: 8:00-2:30; Tuesday-Thursday: 7:30-5:00; Friday: 8:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew J. Wang can be reached on 571-272-0811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

My-Chau T. Tran  
March 12, 2006

